

What is claimed is:

1. An apparatus for transmitting data in a digital broadcasting system, comprising:

5 a source encoding means for encoding data to be transmitted and generating source-coded data;

a capacity managing means for dividing the source-coded data into divided data for a plurality of channels in case that an available data capacity for transmitting the source-coded data does not exist in one channel but sum of  
10 available data capacities of several channels can accommodate the source-coded data, and adding header information to the divided data;

a channel encoding means for encoding the divided data according to channel environment and generating channel-coded data; and  
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a transmitting means for multiplexing, modulating and transmitting the channel-coded data through multiple frequency bands and multiple broadcasting sites.  
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2. The apparatus as recited in claim 1, wherein the capacity managing means stores information of available capacity and unavailable capacity for each frequency band, divides the source-coded data in case that an available  
25 data capacity for transmitting the source-coded data does not exist in one channel but sum of the available data capacities of multiple channels can accommodate the source-coded data, and adds the header information to the divided data in a data packet so as to reconstruct the data in the  
30 receiving apparatus.

3. An apparatus for receiving data in a digital broadcasting system, comprising:

a tuning means for receiving transmitted data through  
35 multiple frequency bands and multiple broadcasting sites;

a demodulating means for demodulating the received

data and generating demodulated data;

a de-multiplexing means for de-multiplexing the demodulated data and generating de-multiplexed data;

a decoding means for decoding the de-multiplexed data  
5 and generating decoded data; and

a data combining means for combining the decoded data.

4. The apparatus as recited in claim 3, wherein the combining means combines the data based on header  
10 information that is included in the decoded data.

5. A method for transmitting data in a digital broadcasting system, comprising the steps of:

(a) encoding image data and audio data to be  
15 transmitted and generating source-coded data ;

(b) at a capacity managing means, dividing the source-coded data into divided data for a plurality of channels in case that an available data capacity for transmitting the source-coded data does not exist in one channel but sum of  
20 available data capacities of multiple channels can accommodate the source-coded data, and adding header information to the divided data;

(c) channel encoding the divided data according to channel environment and generating channel-coded data; and

25 (d) multiplexing, modulating and transmitting the channel-coded data through multiple frequency bands and multiple broadcasting sites.

6. The method as recited in claim 5, wherein the  
30 capacity managing means stores information of available capacity and unavailable capacity for each frequency bands, divides the source-coded data in case that an available data capacity for transmitting the source-coded data does not exist in one channel but sum of available data  
35 capacities of the multiple channels can accommodate the source-coded data, and adds the header information in a

data packet so as to reconstruct the data in the receiving apparatus.

5 7. A method for receiving data in a digital broadcasting system, comprising the steps of:

(a) receiving transmitted data through multiple frequency bands and multiple broadcasting sites;

(b) demodulating the received data for each frequency band and generating demodulated data;

10 (c) de-multiplexing the demodulated data for each frequency bands and generating de-multiplexed data;

(d) decoding the de-multiplexed data for each frequency bands and generating decoded data; and

15 (e) at combining means, combining the decoded data.

8. The method as recited in claim 7, wherein the combining means combines the data based on header information that is included in the decoded data.